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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,027	07/29/2003	Martin Kreuzer	TRW(ASG)6674	7775

7590 03/04/2005

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EXAMINER
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ROSENBERG, LAURA B

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/630,027

Applicant(s)

KREUZER, MARTIN

Examiner

Laura B Rosenberg

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/11/03; 12/8/03
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 6 is objected to because of the following informalities:  
"said steering wheel" should be changed to --a steering wheel-- (line 2).  
Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 4, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Okada (3,758,133). Okada discloses:

- Gas bag protection device (best seen in figures 5, 6)
- Gas bag (#3) having outer wall made of first material (bag material not specified, but most gas bags are made of some type of fabric)
- Outflow opening (portion of #3 covered by #8) in outer wall
- Membrane (#8) made of an extensible, second material (film) fastened to outer wall and covering the outflow opening when gas bag is not fully inflated (figure 5)
- Device (#9) outside gas bag that serves to destroy membrane (shown destroying membrane in figure 6)

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- Gas bag and device spaced far enough apart that membrane meets device only when a predetermined internal pressure of the gas bag has been reached (figure 6)
- Membrane in a folded gas bag state arranged inside the gas bag (figure 5) and turned outwards through the outlet opening on inflation of the gas bag (figure 6)
- In a destroyed state, membrane defines an effective outflow cross-section (best seen in figure 6)
- Device (#9) provided on an "inner face" of a steering wheel (steering wheel not labeled, but is positioned in front of driver as seen in figures 1, 2)

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada (3,758,133) in view of Braunschadel (6,056,318). Okada does not disclose the membrane bulging toward an exterior before reaching the device, or the membrane in the destroyed state providing for either an enlargement or reduction of the effective outflow cross-section as a function of an internal pressure in the gas bag.

Braunschadel teaches:

- Gas bag protection device (figures 1-3)

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- Gas bag (#1) having outer wall made of first material (bag material not specified, but most gas bags are made of some type of fabric)
- Outflow opening (#2) in outer wall (best seen in figure 1)
- Membrane (including #4) made of an extensible, second material (elastic fabric) fastened to outer wall and covering outflow opening when gas bag is not fully inflated (shown in exploded view in figure 1)
- Membrane in a folded gas bag state arranged inside the gas bag and turned outwards through the outlet opening on inflation of the gas bag, bulging forward toward an exterior like a balloon (column 2, lines 42-48)
- In a “destroyed” state, membrane defines an effective outflow cross-section and provides for an adjustment in size of the outflow cross-section as a function of an internal pressure of the gas bag (column 2, lines 42-61)

It would have been obvious to one skilled in the art at the time that the invention was made to modify the gas bag protection device of Okada such that it comprised the membrane bulging toward an exterior before reaching the device and the membrane in the destroyed state providing for either an enlargement or reduction of the effective outflow cross-section as a function of an internal pressure in the gas bag as claimed in view of the teachings of Braunschadel so as to safely accommodate a variety of vehicle occupants who impart different loads when impacting the gas bag in a vehicle collision (Braunschadel: column 1, line 60-column 2, line 22).

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cundill discloses a gas bag protection device comprising a gas bag, outflow opening, membrane, and device for destroying the membrane that only comes into contact with the membrane when a certain internal pressure of the gas bag has been reached.

Braunschadel ('048) discloses a gas bag protection device comprising a gas bag, outflow opening, and elastic membrane.

Vinton et al. disclose a gas bag protection device comprising a gas bag, outflow opening, membrane, and pyrotechnic device for destroying the membrane.

Amamori discloses a gas bag protection device comprising a gas bag, outflow opening, membrane, and device for destroying the membrane.

Reiter et al. disclose a gas bag protection device comprising a gas bag and outwardly bulging outflow opening.

Vendely et al. disclose a gas bag protection device comprising a gas bag, outflow opening, elastic membrane, and a device for causing the membrane to bulge outwardly of the gas bag, thus venting the outflow opening.

7. Though not prior art based on the applicant's priority date, Ekdahl discloses a gas bag, outflow opening, tubular membrane, and a device for causing the membrane to bulge outwardly of the gas bag, thus venting the outflow opening.

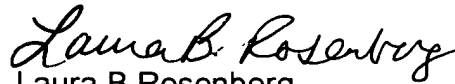
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura B Rosenberg whose telephone number is (703) 305-3135. The examiner can normally be reached on Monday-Friday 7:00am-3:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (703) 308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Beginning April 7, 2005, Laura B Rosenberg can be reached at the new USPTO location at (571) 272-6674, and Paul Dickson can be reached at (571) 272-6669.

  
Laura B Rosenberg  
Patent Examiner  
Art Unit 3616

LBR

  
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SUPERVISORY PATENT EXAMINER  
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